



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,272	11/15/2001	Jeffrey B. Hoke	4569A(DIV)	3733

7590

08/24/2006

Chief Patent Counsel
Engelhard Corporation
101 Wood Avenue
P.O. Box 770
Iselin, NJ 08830-0770

EXAMINER

LEUNG, JENNIFER A

ART UNIT PAPER NUMBER

1764

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/002,272

Applicant(s)

HOKE ET AL.

Examiner

Jennifer A. Leung

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-53 and 55-58 is/are pending in the application.
- 4a) Of the above claim(s) 37-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 48-53 and 55-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 37-53 and 55-58 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Appeal

1. Applicants' appeal briefs submitted on March 6, 2006 and June 2, 2006, and Applicants' supplement to the appeal brief submitted on August 3, 2006, have been received and carefully considered. In view of Applicant's remarks, the finality of the last office action is withdrawn.
2. Claims 1-36 and 54 are cancelled. Claims 37-47 are withdrawn from consideration. Claims 48-53 and 55-58 are currently active.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 48-53 and 55-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 48, it is unclear as to the relationship between the "ambient air" in line 3 and the "atmosphere" set forth in line 1.

Regarding claim 50, "the hydrophobic protective material" lacks proper positive antecedent basis.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 48, 51-53 and 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dettling (WO 98/02235) in view of Adachi et al. (JP 52-122290).

Art Unit: 1764

Regarding claims 48 and 53, Dettling discloses a device comprising: an outer surface of a motor vehicle component that is exposed to a flow of ambient air (see page 7, lines 8-16), wherein said outer surface is coated with a catalyst composition (see page 7, line 17 to page 8, line 2). In addition, Dettling (page 15, lines 24-33) discloses that the catalyst composition may be protected with, “a porous protective coating”, wherein the protective coating comprises,

“... a protective substance which is stable at temperatures up to 100 °C and is resistant to chemicals, salts, dirt and other contaminants which may adversely affect the catalyst composition.”

Dettling, however, is silent as to the protective coating comprising, specifically, a porous overcoat of carbon.

Adachi et al. teaches the protection of a catalyst composition with a porous overcoat of carbon (i.e., a porous material, including activated carbon; see Abstract; also, applicants’ translation page 2, paragraph 6). Active carbon is known to be inherently stable at temperatures up to 100 °C. In addition, Adachi et al. teaches that by providing a porous overcoat of carbon,

“... the catalyst component is not poisoned by the compounds of sulfur, lead, calcium, nickel and the steam, vanadium compound, nickel compounds, etc. in the waste gas... so the catalyst activity is maintained stably for a long time.” (applicant’s translation, page 2, paragraph 4).

“... the compounds of sulfur, phosphorous, lead, etc. are adsorbed selectively to the porous material to prevent the adsorption or sticking to the catalyst component and prevent the degradation of the catalyst activity. Further, the severe degradation of the strength of the catalyst is prevented.” (applicant’s translation, page 2, paragraph 5).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to substitute a porous overcoat of carbon for the porous protective coating in the apparatus of

Art Unit: 1764

Dettling, because the porous overcoat of carbon is capable of protecting the catalyst composition from poisoning and degradation from a variety of contaminants, as taught by Adachi et al., and the substitution of one known protective coating for another known protective coating, on the basis of suitability for the intended use, merely involves routine skill in the art.

Regarding claim 51, Dettling discloses that the catalyst composition is selected from the group comprising base metals, precious metals as well as salts and oxides thereof, and combination thereof (see page 8, lines 3-19; claim 11).

Regarding claim 52, Dettling further discloses that the catalyst composition may comprise base metals, including manganese, wherein the base metals are typically used in the form of oxides.” (see page 8, lines 3-10). Although Dettling does not state that the oxide of manganese is to comprise, specifically, manganese dioxide, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select a catalyst composition comprising manganese dioxide in the apparatus of Dettling, on the basis of suitability for the intended use, because the Examiner takes Official Notice that manganese dioxide is a well known catalyst component used for waste gas purification.

Regarding claim 56, Dettling discloses that the outer surface is selected from the outer surface of radiators, air-conditioner condensers, charge air coolers, transmission coolers, and inserted devices (see page 7, lines 8-16; page 10, lines 1-12; page 11, lines 6-28).

Regarding claim 57, Dettling discloses that the catalyst composition is selected from manganese dioxide, platinum, palladium, and mixtures thereof (see page 8, lines 3-19; claim 11).

Regarding claim 58, Dettling discloses a support material selected from ceria, alumina, titania, silica, zirconia, and mixtures thereof (see page 8, lines 20-31).

Art Unit: 1764

5. Claims 49, 50 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dettling (WO 98/02235) in view of Adachi et al. (JP 52-122290), as applied to claim 48 above, and further in view of Okamoto et al. (JP 55-023039).

The collective teaching of Dettling and Adachi et al. is silent as to at least one layer of a hydrophobic protective material overcoating the overcoat of carbon, wherein the hydrophobic protective material is capable of substantially preventing liquid water and/or water vapor from reaching the catalyst composition or overcoat of carbon.

Okamoto et al. (Abstract) teaches that the gas adsorption power of activated carbon is enhanced by treating the carbon with a water repellent resin, such as PTFE (a fluoropolymer), PP or PS, or a water repellant made of a silicon-containing compounds, such as dimethylchlorosilane or silicone oil.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide at least one layer of a hydrophobic protective material to overcoat the porous overcoat of carbon in the modified apparatus of Dettling, on the basis of suitability for the intended use, because the hydrophobic protective material prevents the condensation of moisture in the carbon pores so that the activated carbon exhibits a stable adsorption power, as taught by Okamoto et al.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined

Art Unit: 1764

application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 48, 51-53 and 56-58 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9-19 of U.S. Patent No. 6,190,627 in view of Adachi et al. (JP 52-12290).

U.S. Patent No. 6,190,627 claims a motor vehicle component, e.g., radiator, coated with a catalyst material of base metal, precious metal, or manganese oxide, etc. In addition, the catalyst material is protected by at least one porous protective material selected from zeolites, clays, alumina, high surface area silica containing aluminum oxide, silica containing high surface area alumina, titania, zirconia, silica, rare earth oxides and mixtures thereof. U.S. Patent No. 6,190,627, however, is silent as to whether the porous protective material may comprise carbon. The same comments with respect to Adachi et al. apply.

Art Unit: 1764

7. Claims 49, 50 and 55 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9-19 of U.S. Patent No. 6,190,627 in view of Adachi et al. (JP 52-12290), as applied to claim 48 above, and further in view of Okamoto et al. (JP 55-023039).

U.S. Patent No. 6,190,627 further claims the provision of at least on hydrophobic protective material to overcoat the porous protective material. Okamoto et al. (abstract) also teaches that the provision of a hydrophobic protective material for overcoating carbon prevents the condensation of moisture in the carbon pores so that the carbon exhibits a stable adsorption power. Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to further provide a hydrophobic protective material to overcoat the carbon in the modified apparatus of U.S. Patent No. 6,190,627.

Response to Arguments

8. Applicants argue that the instant specification establishes the relationship between the “ambient air” and the “atmosphere”. However, it should be noted that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It is suggested that the claim be amended to clarify the relationship between the “ambient air” and “atmosphere”.

9. Applicant's arguments with respect to claims 48-53 and 55-58 have been considered, but they are moot in view of the new ground(s) of rejection, made in view of a reinterpretation of the prior art references to Dettling and Adachi et al., and the newly found prior art to Okamoto et al.


Art Unit: 1764

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 9:30 am - 5:30 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer A. Leung
August 14, 2006 



Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700